

## BEST AVAILABLE COPY

## **CLAIMS**

## What is claimed is:

- 1. A contact lens having an exterior surface and an opposite interior surface, comprising:
  - a. a bifocal optical zone comprising a soft contact lens material;
  - a transition zone, also comprising a soft contact lens material,
     depending downwardly from the lower edge of the bifocal optical
     zone; and
  - c. a ridge zone, also comprising a soft contact lens material, depending downwardly from the transition zone and including a latitudinal ridge portion that extends outwardly from the outer surface, the latitudinal ridge portion having a shape that enables engagement with a lower eyelid of a user so as to provide vertical translation support for the contact lens when being worn by the user.
- 2. A contact lens having top, a bottom, a rotational axis, an inner surface and an opposite outer surface, the outer surface including a plurality of zones, comprising:
  - a. an optical zone having a lower edge, including:
    - i. a distance vision zone having a first radius of curvature that provides distance vision correction and having a first area that is sufficient to overlay a substantial portion of a pupil of a user and disposed in a first position within the optical zone so that the user's pupil is substantially subtended by the distance vision zone when the user is gazing at a substantially horizontal point; and
    - ii. a near vision zone, extending radially outward from thedistance vision zone, having a second radius of curvature that



provides near vision correction and having a second area that is sufficient to overlay a substantial portion of a pupil of a user and disposed in a second position within the optical zone so that the user's pupil is substantially subtended by the near vision zone when the user is gazing at a near vision point below the substantially horizontal point;

- b. a ridge zone, having an upper edge and a lower edge and disposed below the optical zone, that includes a latitudinal ridge portion extending outwardly from the outer surface to enable engagement with a lower eyelid of a user and thereby provide vertical translation support for the contact lens when being worn by the user;
- a transition zone extending from the lower edge of the optical zone to
  the upper edge of the ridge zone that provides a smooth transition from
  the ridge zone to the optical zone; and
- d. a bevel zone, extending radially outward from the ridge-off zone and the lower edge of the ridge zone, that tapers to a narrow end.
- 3. The contact lens of Claim 2, wherein the distance vision zone has a center that is offset from the rotational axis of the contact lens.
- 4. The contact lens of Claim 2, wherein the distance vision zone has an oval shape.
- 5. The contact lens of Claim 2, wherein the optical zone includes a top edge and the ridge zone comprises a first side edge and a second side edge, the contact lens further comprising a ridge-off zone extending outwardly from the top edge of the optical zone, first side edge of the ridge zone and the second side edge of the ridge zone, the ridge-off zone having sufficient area so that the ridge-off zone, the optical zone, the ridge zone and the transition zone cover substantially all of a user's cornea.



- 6. The contact lens of Claim 2, comprising a soft contact lens material.
- 7. The contact lens of Claim 6, wherein the soft contact lens material comprises a silicon hydro-gel.
- 8. The contact lens of Claim 6, wherein the soft contact lens material comprises HEMA.
- 9. A method of producing a master cast used in making a contact lens mold, comprising the steps of:
  - a. rotating a blank, having an outer surface, about a first rotational axis and cutting at least one first surface onto the outer surface of the blank; and
  - b. rotating the blank about a plurality of secondary rotational axes, each secondary rotational axis being different from the first rotational axis, and cutting a portion of a ridge-off surface from the outer surface of the blank while rotating at each secondary rotational axis, thereby forming a ridge-off surface once the blank has been rotated about each of the plurality of secondary rotational axes.
- 10. The method of Claim 9, wherein the blank is affixed to a spindle and wherein the step of rotating the blank about a plurality of secondary rotational axes comprises the step of applying a spacer to the spindle in a plurality of orientations, wherein when the spacer is applied to the spindle in each of the plurality of orientations, the blank will rotate about a different secondary rotational axis of the plurality of secondary rotational axes.
- 11. The method of Claim 9, wherein at least a portion of the first surface comprises a distance vision surface.

5



- 12. The method of Claim 9, wherein at least a portion of the first surface comprises a near vision surface.
- 13. The method of Claim 9, wherein at least a portion of the first surface comprises a ridge surface.
- 14. The method of Claim 9, wherein at least a portion of the first surface comprises a bevel surface.

order A,